

U.S. Application Serial No. 10/714,439  
Response to June 7, 2005 Office Action  
Response Dated November 9, 2005

## **AMENDMENTS TO THE CLAIMS**

Please amend the claims by replacing the original claims with the following listing of claims. The list of claims includes the text of withdrawn claims.

### **LISTING OF THE CLAIMS:**

Claims 1. (Currently amended) A one-step process of creating an interpenetrating polymer network sheet [[12]] bonded to a backing material [[40]] comprising the steps of a) casting a liquid polymer formulation [[10]] as a coating [[11]] onto a carrier substrate [[20]], b) applying a microporous polymer sheeting membrane [[30]] to the surface of the coating [[11]] and allowing or causing said liquid polymer layer [[10]] to impregnate said microporous polymer membrane [[30]], c) applying a backing material [[40]] to the distal surface [[25]] of the impregnated membrane [[30]], and (d) causing a bond to form between the backing material [[40]] and the impregnated membrane [[30]] to form a composite sheet [[52]], and e) solidifying the liquid polymer formulation,

wherein the composite sheet is formed by curing together in a single pass through an oven, said impregnated membrane and said backing material.

Claim 2. (Currently amended) The process of Claim 1, wherein the liquid polymer formulation [[10]] is polydimethylsiloxane.

Claim 3. (Currently amended) The process of Claim 1, wherein the microporous polymer membrane [[30]] is expanded polytetrafluoroethylene.

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Claim 4. (Currently amended) The process of Claim 1 wherein the backing material is textile fabric [[40]].

Claim 5. (Currently amended) The process of Claim 1, wherein the backing material is ~~non-textile fabric or foam, a nonwoven film, or material other than a textile fabric.~~

Claim 6. (Currently amended) The process of Claim 1, wherein the bond between the backing material [[40]] and the distal or upper surface of the membrane [[30]] is enhanced by exposure to vacuum by means of a vacuum roller device [[100]] placed in contact with the distal or upper surface [[35]] of the backing material [[40]] prior to solidification of the liquid polymer formulation.

Claim 7. (Currently amended) The process of Claim 1, wherein the liquid polymer formulation layer [[10]] is polydimethylsiloxane, the microporous polymer membrane [[30]] is expanded polytetrafluoroethylene, and the backing material [[40]] is textile fabric.

Claim 8. (Currently amended) The process of Claim 1, wherein the liquid polymer formulation layer [[10]] is polydimethylsiloxane, the microporous polymer sheet [[30]] is expanded polytetrafluoroethylene and the backing material [[40]] is foam, a nonwoven film, or material other than a textile fabric a non-textile material.

Claim 9. (Withdrawn) A process for producing interpenetrating polymer networks bound in situ to various types of porous backing materials such as textiles including the following improvements a) Single-pass process, b) No second coating of PDMS required to act as glue, c) No solvents or other processing aids required, d) No additional oven length needed to effect the required dwell time, e) Increased line speed since the PDMS need not be fully

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crosslinked by the end of the process, g) The carrier substrate 20 need only be coated with a release surface on one side.

Claim 10. (Withdrawn) A single-pass method of making a wound dressing or scar management product comprising the steps of

forming a layer 10 of liquid PDMS onto a carrier substrate 20,  
laying a layer 30 of ePTFE on top of the liquid PDMS layer 10,  
said layer of ePTFE having small pores,  
impregnating the ePTFE layer 30 with the liquid PDMS by capillary wicking through the small pores in the ePTFE layer which act as capillaries to bring the liquid PDMS to the upper surface of the membrane 30 and form an IPN sheet 12,

bonding the upper surface 25 of the IPN sheet 12 to a textile fabric 40 to form a composite fabric sheet 52 so that garments worn over the wound dressing slide easily over the textile fabric 40 and any tendency of sheet 12 to roll up or cling to such garments is reduced or eliminated,

vulcanizing the IPN sheet 12 after the textile fabric 40 has been applied to the IPN sheet 12,

applying a continuous pressure to the fabric composite sheet 52 as it passes through tunnel oven 60 during the curing process by following a serpentine path through the oven over one idler-roll, under the next, over the next, etc., and by placing S curves in the web path in the oven to form an effective bond between IPN sheet 12 and the textile fabric 40.

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Claim 11. (Withdrawn) The process of claim 10, wherein the ePTFE membrane 30 is pulled over fabric 40 and both materials are brought into contact with the liquid PDMS at the same time.

Claim 12. (Withdrawn) The process of claim 10, wherein vacuum is applied to the upper surface 35 of textile fabric 40 prior to entry into the oven 60 to enhance the bond between the IPN sheeting 12 and the textile fabric 40.

Claim 13. (Currently amended) A one-step process of creating an interpenetrating polymer network sheet [[12]] bonded to a backing material [[40]] comprising the steps of a) casting a liquid polymer formulation [[10]] as a coating [[11]] onto a carrier substrate [[20]], b) applying a lamination of microporous polymer sheeting membrane and backing material [[110]] to the surface of the coating [[11]] and allowing or causing said liquid polymer layer [[10]] to impregnate said microporous polymer membrane, and c) solidifying the liquid polymer formulation;

wherein the composite sheet is formed by curing together in a single pass through an oven, said impregnated membrane and said backing material.

Claim 14. (Currently amended) The process of Claim 13, wherein the liquid polymer formulation [[10]] is polydimethylsiloxane.

Claim 15. (Currently amended) The process of Claim 13, wherein the microporous polymer membrane [[30]] is expanded polytetrafluoroethylene.

Claim 16. (Currently amended) The process of Claim 13, wherein the backing material is textile fabric [[40]].

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Claim 17. (Currently amended) The process of Claim 13, wherein the backing material is non-textile fabric or foam, a nonwoven film, or material other than a textile fabric.

Claim 18. (Currently amended) The process of Claim 13, wherein the liquid polymer formulation layer [[10]] is polydimethylsiloxane, the microporous polymer membrane [[30]] is expanded polytetrafluoroethylene, and the backing layer [[40]] is textile fabric.

Claim 19. (Currently amended) The process of Claim 13, wherein the liquid polymer formulation layer [[10]] is polydimethylsiloxane, the microporous polymer sheet [[30]] is expanded polytetrafluoroethylene, and the backing layer [[40]] is foam, a nonwoven film, or material other than a textile fabric a non-textile material.

Claim 20. (Withdrawn) A process for producing interpenetrating polymer networks bound in situ to various types of porous backing materials such as textiles including the following improvements a) Single-pass process, b) No second coating of PDMS required to act as glue, c) No solvents or other processing aids required, d) No additional oven length needed to effect the required dwell time, e) Increased line speed since the PDMS need not be fully crosslinked by the end of the process, g) The carrier substrate 20 need only be coated with a release surface on one side.

Claim 21. (Currently amended) A single-pass method of making a wound dressing or scar management product comprising the steps of forming a layer [[10]] of liquid polymer formulation onto a carrier substrate [[20]], laying a layer [[30]] of microporous polymer sheeting membrane laminated to a backing material on top of the liquid polymer formulation layer [[10]],

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impregnating the microporous polymer sheeting membrane layer [[30]] with the liquid polymer formulation by capillary wicking through the small pores in the microporous polymer sheeting forming an interpenetrating polymer network sheet [[12]], and

solidifying the liquid polymer formulation by passing in a single pass through an oven, said laminated layer of microporous polymer sheeting membrane, said backing material, and liquid polymer formulation layer.

Claim 22. (Currently amended) The process of Claim 21, wherein the liquid polymer formulation [[10]] is polydimethylsiloxane.

Claim 23. (Currently amended) The process of Claim 21, wherein the microporous polymer membrane [[30]] is expanded polytetrafluoroethylene.

Claim 24. (Currently amended) The process of Claim 21, wherein the backing material is textile fabric [[40]].

Claim 25. (Currently amended) The process of Claim 21, wherein the backing material is ~~non textile fabric or foam, a nonwoven film, or material other than a textile fabric.~~

Claim 26. (Currently amended) The process of Claim 21, wherein the liquid polymer formulation layer [[10]] is polydimethylsiloxane, the microporous polymer membrane 30 is expanded polytetrafluoroethylene, and the backing layer 40 is textile fabric.

Claim 27. (Currently amended) The process of Claim 21, wherein the liquid polymer formulation layer [[10]] is polydimethylsiloxane, the microporous polymer sheet 30 is expanded polytetrafluoroethylene, and the backing layer 40 is foam, a nonwoven film, or material other than a textile fabric a non textile material.